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Wheat Situation

Economics, Statistics, and Cooperatives Service

U.S. Department of Agriculture

WS-249

AUGUST 1979

TABLE 1.--WHEAT: MARKETING YEAR SUPPLY, DISAPPEARANCE, AREA AND PRICES, 1975-79 *

YEAR BEGINNING JUNE 1	SUPPLY: BEGINNING STOCKS	SUPPLY: PRODUCTION	SUPPLY: IMPORTS 1/	SUPPLY: TOTAL	DISAPPEARANCE: DOMESTIC USE: FOOD 2/	DISAPPEARANCE: DOMESTIC USE: ALC. BEVERAGES	DISAPPEARANCE: DOMESTIC USE: SEED	DISAPPEARANCE: DOMESTIC USE: FEED 3/	DISAPPEARANCE: DOMESTIC USE: TOTAL	DISAPPEARANCE: EXPORTS 1/	DISAPPEARANCE: TOTAL DISAPPEARANCE	ENDING STOCKS MAY 31: GOVT. OWNED 4/	ENDING STOCKS MAY 31: PRIVATELY OWNED 5/	ENDING STOCKS MAY 31: TOTAL
	MILLION BUSHELS													
1975/76	435.0	2,122.5	2.4	2,559.8	588.6	0.1	99.0	34.0	721.7	1,172.9	1,894.6	---	665.3	665.3
1976/77	665.3	2,142.4	2.7	2,810.3	588.3	0.1	92.0	68.4	748.6	949.5	1,698.1	---	1,112.2	1,112.2
1977/78	1,112.2	2,036.3	1.9	3,150.5	586.5	0.1	80.0	183.3	849.9	1,123.9	1,973.8	45.7	1,131.0	1,176.7
1978/79 7/	1,176.7	1,798.7	1.8	2,977.2	591.5	6/	87.0	183.0	861.5	1,194.1	2,055.6	49.5	872.1	921.6
1979/80 8/	921.6	2,101.2 (+,-,70)	2.0	3,024.8 (+,-,70)	595.0 (+,-,5)	6/	95.0 (+,-,5)	175.0 (+,-,50)	865.0 (+,-,5)	1,300.0 (+,-,100)	2,165.0 (+,-,125)	N.A.	N.A.	859.8 (+,-,125)

YEAR BEGINNING JUNE 1	AREA: NAT. PROGRAM	AREA: SET-ASIDE AND DIVERTED	AREA: PLANTED	AREA: HARVESTED FOR GRAIN	YIELD: PER HARVESTED ACRE	AVERAGE PRICES: RECEIVED BY FARMERS	AVERAGE PRICES: CHICAGO NO. 2 SOFT RED WINTER	AVERAGE PRICES: KANS. CITY NO. 1 HARD RED WINTER, ORD. PROT.	AVERAGE PRICES: MINNEAPOLIS NO. 1 DARK N. SPRING, 13% PROT.	GOVT. SUPPORT PROGRAM: NATIONAL AVG. LOAN RATE	GOVT. SUPPORT PROGRAM: TARGET PRICE	GOVT. SUPPORT PROGRAM: TOTAL PAYMENTS TO PARTICIPANTS
	MILLION ACRES				BUSHELS	DOLLARS PER BUSHEL						MIL. DOL.
1975/76	53.5	---	74.8	69.4	30.6	3.56	3.54	3.74	4.17	1.37	2.05	51
1976/77	61.6	---	80.2	70.8	30.3	2.73	2.81	2.88	3.23	2.25	2.29	145
1977/78	62.2	---	75.1	66.5	30.6	2.33	2.56	2.72	2.83	2.25	9/2.90	996
1978/79 7/	58.8	8.4	66.1	56.8	31.6	2.94	3.57	3.38	3.33	2.35	3.40	610
1979/80 8/	66.0	6.0	71.2	62.3	33.8	3.50-4.25				2.35	3.40	

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENT. 2/ USED FOR FOOD IN THE UNITED STATES, U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL; APPROXIMATES FEED USE. 4/ UNCOMMITTED, GOVERNMENT ONLY. 5/ INCLUDES TOTAL LOANS. 6/ LESS THAN 50,000 BUSHELS. 7/ PRELIMINARY. 8/ PROJECTED. 9/ UNPLANTED PORTION OF ALLOTMENT QUALIFIED FOR $2.47. N.A. = NOT AVAILABLE. *TOTALS MAY NOT ADD DUE TO ROUNDING.

THE WHEAT SITUATION

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Approved by the
World Food and Agricultural
Outlook and Situation Board
July 24, 1979

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The *Wheat Situation* is published in February, May, August and November.

SUMMARY

New Wheat Crop To Exceed Two-Billion-Bushels Record Exports Likely

The 1979/80 U.S. wheat outlook is beginning to shape up with a bumper crop almost certain, prospective exports at a record level, and strong prices.

The July 1 forecast of the U.S. wheat crop is at a near-record 2.1 billion bushels, the result of an 8-percent increase in total planted acreage and excellent winter wheat yields. Chances are 2 out of 3 that the final crop outcome will be within 70 million bushels of this forecast. The Hard Red Winter wheat crop will likely be a record 1.07 billion bushels, nearly 30 percent larger than in 1978. A sharp increase in the Soft Red Winter crop will expand supplies from last season's tight situation, but a shortfall in the 1979 White wheat crop will tighten supply. Production of spring wheat other than Durum is forecast slightly up from a year ago, but reduced acreage and yields will likely cut the Durum crop by 17 percent.

Prospects for foreign wheat production have deteriorated since May; in particular, the USSR's crop is now expected to be well below last year's record harvest. The total 1979/80 world wheat crop is forecast about 7 percent short of 1978/79's record 438 million metric tons. Smaller crops are also projected for Canada, West and East Europe and Australia. With world wheat usage close to last year's record level, and smaller world supplies, prices are likely to be stronger in 1979/80.

World conditions now point to record U.S. exports this year of about 1.3 billion bushels. Current transportation, and labor problems are limiting expanded wheat exports from other exporting countries, leaving the United States as the main supplier to the international wheat market. By July, export commitments were 40 percent higher than a year ago.

After remaining steady for several months, farm wheat prices started to advance in May, reflecting weather-related problems in the United States and the world, limited producer selling, dwindling carryover stocks, prospects for expanded export sales and concern for increasing transportation

problems. Prices jumped in June and continued strong in July even with the mid-May release of reserve stocks and the bountiful new crop harvest. For 1979/80, farm prices will likely average between $3.50 and $4.25 per bushel, compared with $2.94 in 1978/79.

Last season, total wheat disappearance topped 2 billion bushels for the first time. Domestic use was modestly higher and exports were up 6 percent—the second heaviest on record. The result was a sharp drawdown—22 percent—in yearend wheat stocks, the first decline in five years.

OUTLOOK FOR 1979/80

Wheat Acreage Increased

Because of generally good weather and soil moisture conditions, improved wheat prices, and less participation in the set-aside program, farmers increased their 1979 wheat plantings to 71 million acres, up 5 million from 1978. Participants in the 1978 program certified 42 million acres setting aside 8.4 million acres, while producers' 1979 set-aside acreage may total around 6 million acres.

Planted area was up only 4 percent in major Hard Red Winter States, while Soft Red Winter producers seeded nearly a third more than the abnormally small area seeded in 1978. Total White wheat acreage (Western, Eastern, and Spring) was up about 18 percent, with the largest increase coming from more plantings in the East and a sharp rise in White spring acreage because of reseeding heavy winterkill areas in the Pacific Northwest. Based on July 1 conditions, larger harvested acreage and higher than anticipated yields increased the 1979 winter wheat forecast to 1.56 billion bushels, up 25 percent from 1978.[1]

Wheat: U.S. planted and harvested acreage

Class	Planted		Harvested		Percent harvested	
	1978	1979 [1]	1978	1979 [1]	1978	1979 [1]
	Million acres				*Percent*	
Winter	47.7	51.7	38.9	43.4	81.5	84.0
Durum	4.1	4.0	4.0	3.9	97.9	97.1
Other Spring	14.3	15.5	13.9	15.0	97.6	96.2
Total	66.1	71.2	56.8	62.3	86.0	87.4

[1] Preliminary.

Spring wheat producers were hard pressed to complete seeding of the 1979 crop before June 1, after which crop development can be seriously affected. Even so, the final acreage seeded to Hard Red Spring wheat was up 5 percent. Total acreage planted to Durum was up slightly in North Dakota, but all other States cut plantings substantially. In total, Durum acreage was 3 percent less than last year.

[1]See additional wheat class discussions on page 8.

As of July 1, 1979, total spring wheat production other than Durum was forecast to be up slightly mainly because of a sharp increase in White spring wheat acreage. The Hard Red Spring crop is expected to about match last year's 379 million bushels. The 1979 Durum wheat harvest could be down about 15 percent because of smaller acreage and lower yields.

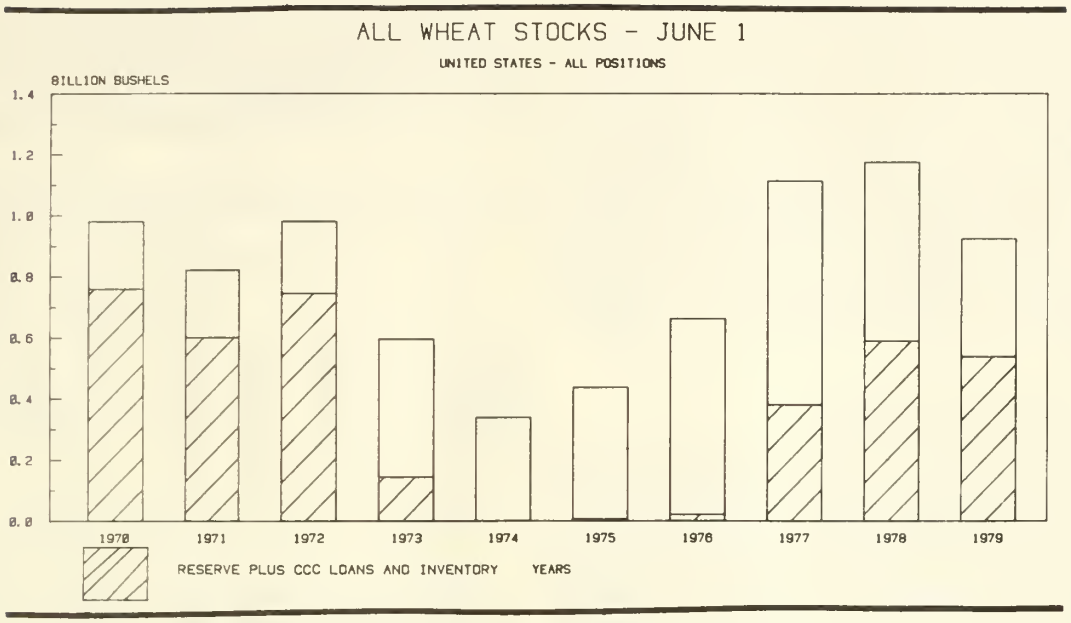
Carryover Stocks Decline But 1979/80 Supply To Be Up

On June 1, wheat stocks in all positions totaled 922 million bushels, compared with 1,177 million a year ago. This is the first drawdown of carryin stocks since June 1974 and reflects a small 1978 crop and the record 1978/79 disappearance of 2 billion bushels. For the first time, over half of these carryin wheat stocks were on the farm. Last June, on-farm stocks accounted for 42 percent of the total carryin and in June 1977, 38 percent. This shift represents expanded farm storage capacity over the last 3 years and the advent of the farmer-held reserve program. While about a third of last June's carryin supply was isolated from the market in the farmer-owned reserve or government inventory, currently all except the 50 million bushels owned by the Commodity Credit Corporation (CCC) are readily marketable because of the mid-May release of the reserve for redemption.

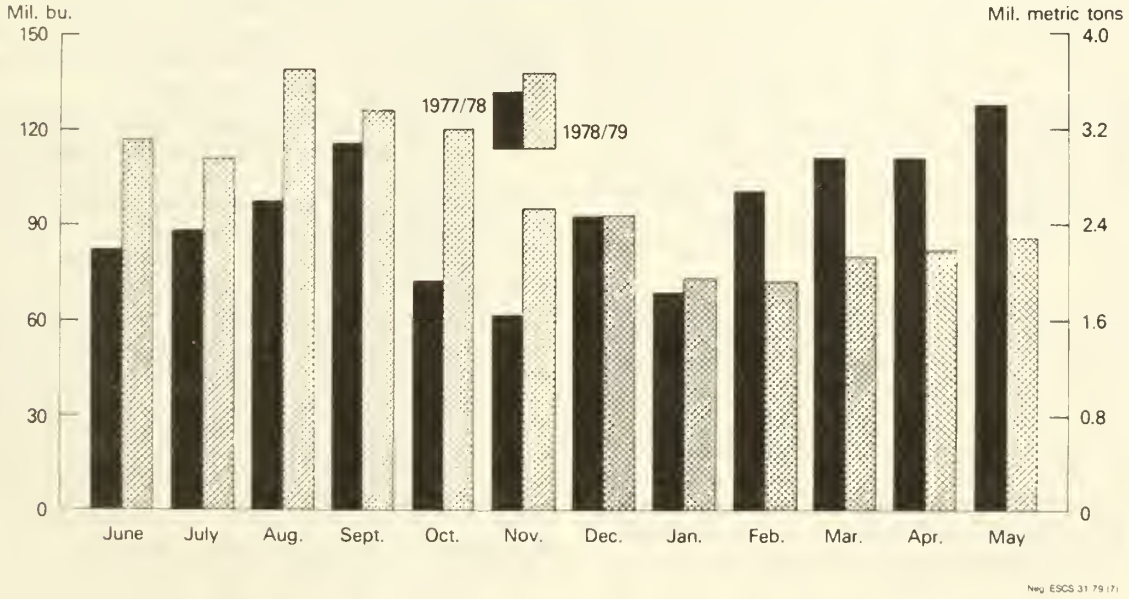
Despite the reduced carryin stocks, the large 1979 production will increase the total 1979/80 wheat supply to more than 3 billion bushels.

Small Rise in Domestic Use

This year, food use is projected at about 595 million bushels, up slightly from last year. This increase may simply reflect population growth, for per capita consumption appears to be holding steady. Strong concern over the continued downturn in white bread consumption has developed into a major program proposal by a coalition of wheat industry segments to educate the Nation's population about the nutritional and economic value of wheat based foods. The program proposes a USDA-monitored *Wheat Industry Council*, which would conduct research and nutritional



U.S. Wheat Exports By Months, Marketing Years 1977/78 and 1978/79



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education programs to better inform consumers about bakery products and to dispel misconceptions. Final action will be decided in an upcoming referendum posed to the Nation's wholesale bakers.

Wheat feed use in 1979/80 may be reduced from last year's 183 million bushels, but harvest time developments (sprout damage and poor quality) often have an important bearing on this usage. Wheat and feed grain prices seem to be advancing with the same intensity, so last season's feed grain comparative price advantage is expected to continue.

Record Export Year Projected

Early indications point to a record export level in 1979/80, probably around 1.3 billion bushels. This would top the 1973/74 record when U.S. exports were 1,217 million bushels. The export pace slowed during the latter half of 1978/79, responding to a more competitive world trading situation. However, by the end of the marketing year, unshipped export sales carried into the 1979/80 season were at the same high level that helped produce last year's near-record export loadings. On July 8, export commitments (exports plus outstanding sales) totaled around 550 million bushels, 40 percent larger than the same date a year ago.

World wheat trade in 1979/80 is expected to be a record with the U.S. share of total trade projected to remain near or slightly above last season's 45 percent. Current transportation and labor problems are limiting expanded wheat exports from other exporting countries, leaving the United States as the main supplier to the international wheat market. This Nation's grain transporting and handling capability may also become taxed in view of the expected record total grain exports in 1979/80.

Japan, China, and the USSR account for just under 30 percent of total U.S. wheat exports. These markets will continue to be large in 1979/80 with any moderation in Chinese purchases likely being offset by increases from the Soviet Union. Collectively, the smaller but growing markets in Latin America, the Middle East, and Africa represent over half of U.S. overseas sales. These markets will likely be maintained in 1979/80, but higher prices for U.S. wheat could limit expansion.

Wheat Prices Advance During Harvest

Weather-related problems in the U.S. and other world wheat-producing areas, limited producer selling, dwindling carryover stocks, and prospects for expanded export sales in 1979/80 caused early May wheat prices to advance over 20 cents per bushel from the $3 level of the previous 8 months. By May 16, farm prices reached a level that the Commodity Credit Corporation (CCC) announced that all wheat held in the 3-year farmer-owned reserve (413 million bushels) could be redeemed.

Wheat: Prices received by farmers in selected States

States	April		May		June	
	1978	1979	1978	1979	1978	1979 [1]
	Dollars per Bushel					
Illinois	2.88	3.45	2.86	3.57	2.92	3.89
Kansas	2.82	3.03	2.67	3.22	2.71	3.62
North Dakota	2.75	2.84	2.78	3.07	2.79	3.71
Oklahoma	2.87	3.17	2.87	3.26	2.86	3.82
Washington	3.22	3.39	3.37	3.53	3.41	4.00
United States	2.82	3.01	2.82	3.20	2.81	3.73

[1] Preliminary.

Even with these released reserve stocks adding to the marketable supply and a bountiful new crop being harvested, prices continued upward through June and into July. The average mid-June farm price was $3.73 per bushel, up 53 cents over May and 92 cents above a year ago. Prices above $4 per bushel have been common at the farm level in many areas. The season's average farm price now seems likely to be between $3.50 and $4.25 per bushel, up from $2.94 last season.

The upward momentum for this year's wheat market prices has been well established for over 2 months, however, potential developments could affect prices as the season progresses:

- Improved weather prospects in the Northern Hemisphere still have the potential for larger harvests of various world spring wheat crops and for increased crop outturns in the Southern Hemisphere.
- Expanded producer selling based on the belief that prices may have peaked.
- If the call price ($4.11 per bushel) is reached redemption of wheat loans is required, forcing added wheat supplies onto the market.
- Possibility of a reduced acreage set-aside requirement for the 1980 crop.
- Transportation bottlenecks in exporting and importing countries.

Recent Wheat Program Developments

- USDA will announce its final decision on the 1980 wheat program on or before August 15. Current supply/demand/price conditions suggest that 1979's 20-percent set-aside program may not be necessary for the 1980 crop. The announcement will include details on the national program acreage, set-aside, target and loan levels,

and the special grazing and hay program.

- For 1979 wheat crop price support loans ($2.35 per bushel), the interest rate will be 9 percent, up from 7 percent for 1978 loans.

Wheat price support loan status, 1974-78 crops, as of July 18, 1979

Item	Crop of—					
	1974	1975	1976	1977	1978	Total
WHEAT	*Million bushels*					
Placed under CCC loan	36	48	499	591	255	xxx
Redeemed by farmers	36	48	285	427	165	xxx
Delivered to CCC	0	0	48	2	---	50
In reserve program	---	---	166	159	---	325
Loans outstanding	0	0	0	3	90	93
Total in reserve, CCC, and loans outstanding	0	0	214	164	90	468
	Dollars per bushel					
National average loan rate	1.37	1.37	2.25	2.25	2.35	
Average farm price						
Season	4.09	3.56	2.73	2.33	2.94	
Monthly, low/high	3.47-4.87	2.92-4.11	2.19-3.46	2.03-2.82	2.81-3.22	
	Reserve "trigger" prices					
	Dollars per bushel					
Release	xxx	xxx	xxx	3.15	3.29	xxx
Call	xxx	xxx	xxx	3.94	4.11	xxx

WORLD WHEAT OUTLOOK

World Wheat Crop Prospects Down From 1978's Record

World wheat production in 1979/80 is forecast at 406 million metric tons compared with 1978/79's record 438 million. This 7-percent decline represents a significant change from the large supply and stable prices of 1978 and early 1979. Even with a larger world wheat crop than currently estimated, some tightening of wheat supplies is expected to keep prices at a higher level in 1979/80. While estimated production is down, world wheat use is forecast to be slightly above last year's record 415 million tons. Because of current transportation and labor problems other major exporting nations, a good share of the increase in world trade would have to be met by the United States.

Outlook For Major U.S. Markets

In the *Soviet Union*, adverse fall weather reduced the area sown to winter wheat and slowed development of the fall crop. Winterkill was more severe than normal in European USSR, while spring wheat crop conditions in West Siberia and Kazakhstan appear favorable. Rainfall since April had been short in winter wheat areas, and hot drying winds adversely affected soil moisture. Thus, USSR's 1979 wheat crop is currently forecast at 90 million tons, down sharply from last year's record 121 million. Prospects are for 1979/80 wheat imports of around 10 million tons, compared to 5 million in 1978/79.

USSR: Wheat production, average 1971-75, annual 1974-79

Year	Winter	Spring	Total
	1,000 metric tons		
1971-75 average	41,590	47,345	88,935
1974	44,698	39,215	83,913
1975	36,651	29,573	66,224
1976	44,594	52,288	96,882
1977	51,971	40,190	92,161
1978[1]	68,995	51,825	120,820
1979[2]	---	---	90,000

[1] Preliminary. [2] Forecast.

Delayed spring wheat seeding in *Western Europe*, reduction in fall acreage, and yields expected

down from 1978's record level will reduce the 1979 harvest by about a tenth. Imports of high protein wheat should increase.

The *Eastern Europe* crop was also affected by adverse weather last fall and this spring. Hot, dry weather early in the season reduced the prospective crop size about 10 percent below last year's 36 million tons. While increased wheat imports are likely, higher petroleum import costs and limited foreign exchange reserves and import capacity may limit the size of the increase.

China's crop prospects are much improved over June 1978. If the spring wheat harvest equals that of 1978, total wheat production could top last year's 44 million tons. As a result, wheat imports could be moderately down.

Larger wheat crops are forecast for *India* and *Pakistan*. India's record harvest of over 34 million tons is expected to provide nearly 2.5 million tons of exportable wheat this year. Pakistan also had an excellent crop this year but may continue wheat imports to rebuild depleted stocks.

Outlook for Principal U.S. Competitors

Australia's 18-million-ton record 1978/79 wheat harvest will mean larger supply and exports during 1979/80. Attempts will be made to push total grain exports above the 13-million-ton record of 1977/78. Australia's annual export capacity is around 16 million tons, but labor and shipping problems will likely prevent achieving this maximum. Seeding of the 1979/80 crop has generally been favorable, but conditions for the rest of the season are not expected to match last year's ideal conditions. The early season forecast places 1979/80 wheat production about a sixth below last year's record level.

Land planted to wheat in *Argentina* is projected to increase around 10 percent in 1979. This increase stems partly from a policy change that links support prices to the wholesale price index in order to better protect producers against inflation. The practice of double cropping wheat and soybeans has increased.

Because of the cold, wet spring, *Canada's* farmers have been unable to plant all the 10.8 million hectares planned in mid-March. Rapeseed and flax, which have a shorter growing season, have been planted in place of wheat. Durum acreage may be down as much as 20 percent. Railcar shortages, adverse weather, and labor problems have considerably slowed the effective export capacity, thus preventing expanded export bookings. In late May, Canada temporarily withdrew from the world wheat market until serious logistical delays could be corrected.

By the end of May, the *European Community (EC)* slowed its 1978/79 expanded wheat export program in the face of smaller new crop prospects. Barring an unexpected crop recovery, the EC is likely to be in a reduced competitive position for exports in 1979/80.

Turkey has emerged as a sizable wheat exporter since 1977/78 as consecutive bumper harvests have increased stock levels above domestic needs. A near record 1979/80 crop is expected to result in increased exports in order to alleviate foreign exchange shortages and inadequate storage. This year, Turkey's wheat exports are expected to be 2 million tons.

WHEAT OUTLOOK BY CLASS

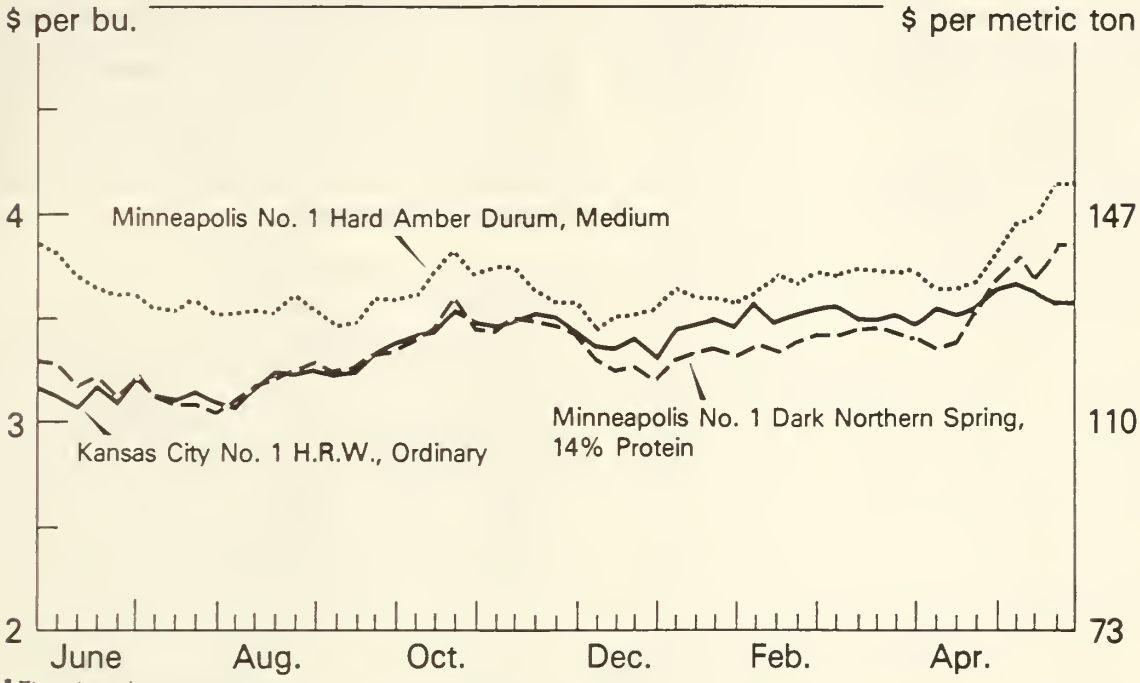
A Record Billion-Bushel 1979 HRW Crop; Prices At Four-Year High

Generally, the 1979 Hard Red Winter (HRW) crop developed better than normal, although somewhat delayed because of a late spring. Wet weather often delayed the early harvest in the Southern Plains, but hot summer conditions soon accelerated combining. As of July 1, HRW production was indicated at a record 1.07 billion bushels, nearly 30 percent larger than the 1978 crop. Bumper crops are reported in three leading HRW States—Kansas, Oklahoma, and Texas. Because of good moisture and temperature conditions, yields are up considerably from last year. Early quality reports indicate a protein level better than the 10-year average and about the same as last year.

June 1 HRW stocks, at 420 million bushels, were off a third from 1978 and represented the first drawdown in carryin stocks in five years. But the larger 1979 crop offsets this decline, so the 1979/80 supply will be 2 percent larger.

Domestic use in 1979/80 should not change significantly from last year's high level. Higher prices, however, could tend to reduce HRW fed to livestock. Another good export season is probable since the USSR is expected to purchase mainly HRW under the Grains Agreement. Early export commitments (shipments plus outstanding sales) already exceed last year's heavy level by 65 percent. A further pickup in foreign sales is expected as other world exporters' wheat stocks tighten and the large U.S. exportable supply expands with the harvest.

Cash Wheat Prices, 1978/79*



* Thursday price

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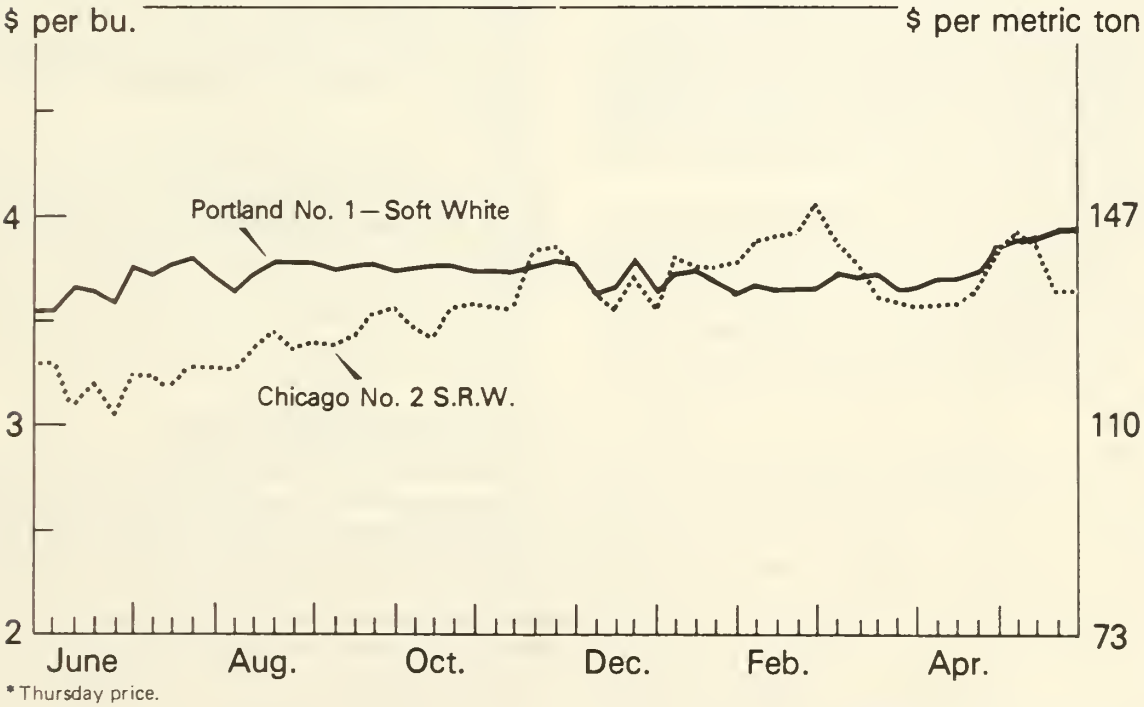
Cash Wheat Prices, 1978/79*



* Thursday price.

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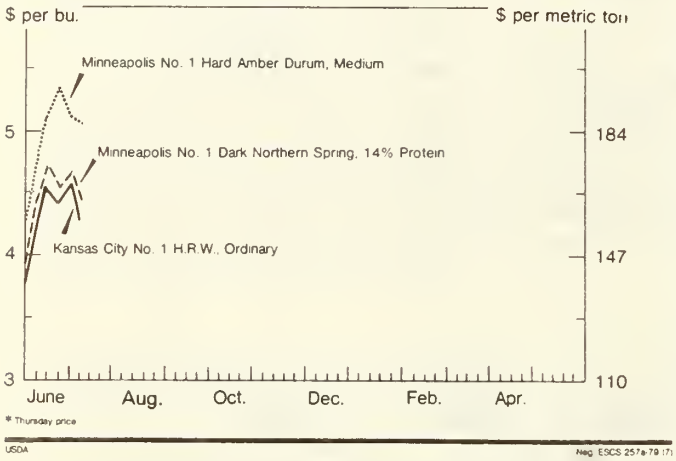
During early July, HRW prices at Kansas City settled around $4.50 per bushel after June prices jumped nearly $1. Factors that earlier combined to push prices up have been reflected in the market with shorter term supply/demand prospects now being price determinants. It is fairly certain 1979/80 farm price levels will be at their highest level in 5 years.

Cash Wheat Prices, 1979/80*



Spring Wheat Supply Down; Exports Outlook Bright

The 1979 Hard Red Spring (HRS) wheat crop was estimated at 376 million bushels on July 1. This is only a small decrease from a year ago and reflects expected lower yields since planted acreage was up 5 percent. A cold, wet spring resulted in extensive seeding delays and caused some acreage diversion to other crops.

HRS stocks on June 1 totaled about 320 million bushels, slightly less than a year ago. Combined with this year's crop, the total 1979/80 supply should be slightly lower. This represents the first reduction in HRS supply in five years and suggests that the long period of buildup in spring wheat stocks may ease if the heavy demand continues in 1979/80.

Last year, HRS exports exceeded 230 million bushels, the second largest volume since the large shipments of 1973/74. July's export bookings are nearly 50 percent ahead of last year's pace, suggesting that even moderately sustained wheat sales through 1979/80 may result in a record export season. Much of this depends on the size of the Canadian crop and their internal transportation problems. Last year, the HRS price advantage relative to HRW made spring wheat a good buy and resulted in increased domestic use. This year, supply/demand situation suggests a return to the more traditional premium for spring wheat and slowing domestic use.

Like other wheat classes, HRS market prices reflected expectations of expanded wheat exports in 1979/80 and increased over $1 per bushel during the last two months. Farm prices near $4 were common. The price outlook depends heavily on the volume of farmer-held reserve spring wheat that is marketed, on the final size of the 1979 crop, and on additional export sales.

Durum Supply Remains Large; Prices Spiral

Acreage seeded to Durum is estimated at 4 million acres, down 3 percent from last year. North Dakota, the leading Durum producing State, upped plantings slightly, while acreage in other States declined sharply. California and Arizona growers reduced acreage by half. Delays in spring seeding helped to reduce yields substantially below last year's record 33 bushels per acre. Thus, the 1979 harvest as of July 1 is forecast at 111 million bushels, down 17 percent. This crop, coupled with a carryin about a fourth larger than last June, results in total 1979/80 Durum supplies about equal to last season's 200 million bushels.

The world market for Durum is not large, and the United States and Canada share nearly all of the export trade. Despite a sizable increase in world Durum production last year, U.S. shipments reached a record 70 million bushels. Another good season is likely as demand from Western European buyers continues strong. As long as Durum prices stay competitive with other wheat classes, the recent growth trend in domestic food use should continue.

May and June prices of No. 1 Hard Amber Durum at Minneapolis posted their sharpest advances since 1972 as a result of spring planting delays, increased export demand, and prospects for a reduced Canadian crop and exports. Durum prices, at more than $5 per bushel, were $1.70 higher than a year ago. Because of the potential large supply, prices may moderate as the harvest approaches.

Soft Red Winter Crop Up Sharply

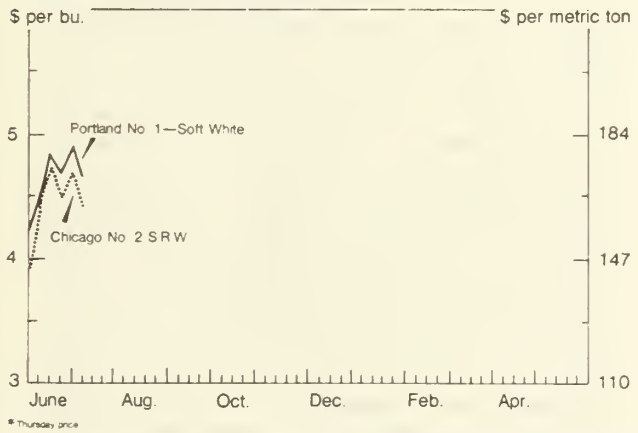
A 25-percent acreage increase and favorable growing conditions combined to improve the crop outlook in key Soft Red Winter (SRW) wheat States. The July 1 forecast is over 300 million bushels, about 100 million bushels more than 1978. This increase will provide some relief to the very tight supply situation that existed during most of last marketing year. However, since the June 1 carryin was extremely low—27 million bushels—the total 1979/80 SRW supply, at slightly over 330

million bushels, will not be excessive relative to the skimpy 273 million bushels of last season.

Disappearance should be heavy this marketing year as domestic and overseas demand will again be bidding for a limited supply. In 1978/79, domestic use faltered somewhat because of the difficulty in finding marketable grain. Overseas purchases were reduced because of high price levels, but buyers were still in need of soft wheats. Current outstanding export sales are nearly 60 percent above a year earlier with increased interest from Eastern Europe, and Latin America.

The certainty of increased SRW supply after the new crop is harvested did not hinder the June cash market price from climbing to around $4.80 per bushel compared with $3.20 a year ago. Chicago prices remain higher than Kansas City's, a relationship that goes back to the 1977/78 season, but early July strength on the HRW market has eroded the wide spread between these marketplaces. For the buyer who can shift purchases between classes, the prospects for lower protein levels in the HRW crop may mean lower premiums for low protein wheat this season.

Cash Wheat Prices, 1979/80 *



USDA Neg. ESCS 2576-79 (7)

White Wheat Crop and Supply Down

Last winter, severe cold during periods of no snow cover caused above-normal freeze losses to White winter wheat fields in the Pacific Northwest (PNW). However, growers reseeded some of this acreage to White spring wheat varieties. Overall, the 1979 all White wheat acreage (Western, Eastern, and Spring) is up about 18 percent, but the heavy reseeding of winter acreage reduces this percentage. As of July 1, the White wheat crop was estimated at 238 million bushels, 5 percent below last year. The White spring wheat crop will be up 16 million bushels, offsetting some of the winter wheat production loss. Expanded acreage in Michigan and New York will nearly double the Eastern White wheat crop. Despite the smaller 1979 crop and slightly reduced carryin stocks, total 1979/80 White wheat supply will still be above 300 million bushels, slightly below last year.

Domestic use should remain steady at around 65 million bushels. Wheat feeding will likely slip back to normal levels unless unfavorable harvest weather in the Northwest produces excessive off-grade wheat as occurred in 1978. Exports in 1978/79 were up 6 percent despite highly competitive world trade. Foreign buyers seeking soft wheats found SRW supplies short and White wheat prices competitive. This year's soft wheat supply picture (Red up, White down) could ease total White wheat exports in 1979/80.

Early season White wheat prices, keeping pace with the overall recent surge in wheat prices, reached $4.90 per bushel at Portland with a farm price of $4 prevalant throughout the PNW. July's indication of a smaller crop along with slow farmer selling suggest farm prices will remain higher than last year's harvest time price of $3.45 per bushel.

Smaller 1979 Rye Crop Likely; Stocks Remain Large

The 1978/79 rye season began with stocks at a record low 4.1 million bushels. But the exceptionally large 1978 crop, the largest since 1972, increased total supplies about 40 percent over a year earlier. However, orderly producer selling kept the 1978/79 farm price from falling below the loan level ($1.70 per bushel) as in 1977. Mainly on the strength of stepped-up feeding, total rye disappearance was up 18 percent in 1978/79—to the highest level in four years. Despite the increase in use, rye stocks carried into the 1979/80 crop

Rye: Supply and disappearance

Item	June-May	
	1977/78	1978/79
	Million bushels	
June 1 stocks	4.4	4.1
Production	17.3	26.2
Imports	.1	.1
Total supply	21.8	30.4
Exports	([1])	.3
Food	3.6	3.7
Seed	4.8	4.9
Industrial	1.9	2.4
Feed	7.4	9.5
Total disappearance	17.7	20.8
Ending stocks May 31	4.1	9.6

[1] Less than 50,000 bushels.

year were more than double a year ago.

As of July 1, the 1979 rye crop rated fair to good, although maturity was considerably behind normal due to the cold spring. The new crop, forecast at 23.6 million bushels, was down 10 percent due to fewer acres harvested for grain and a decline in yield. Minnesota was the only major producing State that expected a larger 1979 crop. Production in North and South Dakota will likely be off 23 percent.

Offsetting this year's smaller crop will be the large June 1 carryin. As a result, 1979/80 rye supply will remain large, keeping prices depressed relative to wheat. This may result in increased feed use as producers would tend to sell their higher margin wheat and feed grain stocks first.

WRAPUP OF 1978/79

Wheat disapperance during April-May was down about 15 percent from the same period a year ago, mainly because of slackening export shipments. Unusually large exportable supplies in major wheat-exporting countries caused a very competitive foreign trade situation, particularly since last January.

Even with the late season export slowdown, total 1978/79 wheat disappearance reached an all-time high of 2.1 billion bushels. Thus, the United States experienced the first drawdown in yearend stocks since 1974/75. June 1 wheat stocks, at 922 million bushels, were 255 million less than a year earlier (table 1).

Exports for the 1978/79 marketing year totaled 1,194 million bushels, the second heaviest on record. This was 6 percent above 1977/78 and mainly reflected another strong world wheat trade year. During the first half of the year, the United States was the only major exporter with ample uncommitted exportable supplies. Because of a record wheat crop in the USSR, Japan replaced the USSR as the United States' leading commercial customer. The most notable change in 1978/79 export volume came from purchases by China of more than 100 million bushels, compared with only about 1 million in 1977/78.

Domestic disappearance in 1978/79 was up fractionally to a new record level of 861 million bushels. Relatively little change was noted in food and feed use, but seed use was up due to the increased 1979 acreage. Total mill grind showed a small gain as flour and wheat product exports again topped 60 million bushels (grain equivalent). Despite significantly higher prices, wheat feed use for 1978/79 totaled around 180 million bushels, which was comparable to the volume used for feed in 1977/78 when early season prices were below $2 per bushel. Normally, higher prices would cause wheat feeding to drop sharply. Other factors could have weighed more heavily last year (see special article, "Annual Use of Wheat for Feed," in this issue.

Wheat prices began the 1978/79 marketing year nearly 80 cents per bushel higher than a year earlier. The increase was caused by concern about a lagging harvest, a short crop, heavy export shipments, extremely light farmer selling, and large stocks committed to the farmer-held reserve. Farm prices remained remarkably steady around $3 per bushel for 9 months as supply/demand seemed to be in equilibrium. But then concern about deteriorating world crop prospects, especially in the USSR, and indications that other major wheat exporters' exportable supplies would be reduced caused a bullish flurry at yearend. Farm prices strengthened dramatically despite prospects of a large 1979 crop. In mid-May, the release level ($3.29) was reached, and the wheat in the farmer-held reserve was released. The 1978/79 farm price averaged $2.94 per bushel, substantially above 1977's $2.33 per bushel.

ANNUAL USE OF WHEAT FOR FEED

By G. Robert Butell, Mellie A. Warner,
and Thomas E. Elam[1]

ABSTRACT: The use of wheat in livestock and poultry feed rations fluctuates considerably in response to economic relationships. Multiple regression analysis is used to explain year-to-year variation in wheat feeding. June-September is usually the heaviest wheat feeding period. Thus, the analysis concentrates on variables that affect early season use. Wheat feeding is found to be related to the number of cattle on feed, the fed cattle/wheat price ratio, and the sorghum/wheat price ratio. Despite strong cattle prices, fewer cattle on feed and higher wheat prices should cause some decline in 1979/80 wheat feeding.

KEYWORDS: Wheat, wheat feeding, feed-livestock prices, feed model.

This article investigates economic factors that help to explain variation in wheat feeding in the United States. The analysis relates wheat feed use in the June-May marketing year (QWFD) to explanatory variables concerned mainly with the cattle-feeding industry, because cattle feedlot operations are the major source of wheat feed demand (2).[2] Cattle are used here as a proxy for other wheat-consuming animals.

In 14 of the last 19 years, over 40 percent of the wheat feeding in the wheat marketing year has occurred in the June-September period. This four-month period is one in which sorghum and corn supplies are generally at a seasonal low and prices at a seasonal high, while the wheat marketing year is getting underway with large harvest-time supplies. Thus, the two equations shown in table 1 include factors that would determine wheat feeding early in the season. Statistical results are given in the table for the historical period 1960/61 to 1978/79. Numbers in parentheses below the equation coefficients are "t-values"—measures of statistical reliability. A "t" value of 2 and above suggests statistical significance. The bracketed terms below the coefficients are elasticities computed at mean values of variables. These indicate the percentage response in wheat feeding, given a 1-percent change in the corresponding explanatory variable.

Variables in the equations are defined as follows:

QWFD	=	Quantity of wheat fed in June-May year (million bushels).
COFJU7	=	Cattle on feed on July 1 in 7 western States (Texas, Oklahoma, Colorado, Kansas, Nebraska, California, and Arizona) (thousand head).
PFDC	=	Slaughter steer price; average price per 100 pounds, Choice grade, 900-1,100 lb., Omaha, June-May year (dollars per cwt.).
PFDCMS	=	Slaughter steer price; average price per 100 pounds, Choice grade, 900-1,100 lb., Omaha, May-September period, i.e., May and the first 4 months of the wheat marketing year (dollars per cwt.).
PWMS	=	Average price received by farmers for wheat, May-September period, i.e., May and the first 4 months of the wheat marketing year (dollars per cwt.).
PSMS	=	Average price received by farmers for sorghum, May-September period, i.e., May and the first 4 months of the wheat marketing year (dollars per cwt.).
DV67	=	Dummy variable, where DV67 = 1 in 1967/68; DV67 = 0 otherwise.

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[2]Numbers in parentheses refer to references listed at the end of this article.

Table 1—Equations for estimating quantity of wheat fed (QWFD), United States, 1960/61 to 1978/79

Equation	COF-JU7	PFDC/ PWMS	PFDCMS/ PWMS	PSMS/ PWMS	DV67	Constant	R^2	S.E.
(1)	.0102	16.356		83.584	-80.328	-170.297	.93	23.5
t.	(2.99)	(5.82)		(1.24)	(-3.24)	(-5.52)		
e.	[.45]	[1.57]		[.56]				
(2)	.0109		17.914	71.361	-80.261	-178.854	.91	26.1
t.	(2.87)		(4.98)	(.91)	(-2.91)	(-5.26)		
e.	[.48]		[1.70]	[.48]				

Cattle on feed on July 1 (COFJU7) reflects the number of cattle available to be fed during the early part of the wheat marketing year in an area where most wheat feeding for cattle is believed to occur. Increased cattle on feed on July 1 should increase the amount of wheat fed. Increases in the ratio of the price of fed cattle relative to the price of wheat (PFDC/PWMS) should increase current feed demand for wheat. Cattlemen also look at the price of wheat relative to other feed grains. Thus, an increase in the sorghum/wheat price ratio (PSMS/PWMS), should increase the quantity of wheat fed.

A dumy variable (DV67) was used to exclude 1967/68, a year in which wheat feeding fell far below the expected level. In the spring of 1967, feeders apparently made early commitments to feed sorghum due to the outlook at that time for potentially strong wheat prices (1). As the season progressed, it appeared that many wheat producers chose to use the loan program rather than to feed wheat—despite wheat and feed grain prices conducive to wheat feeding.

Equations 1 and 2 (table 1) differ as follows: In equation 1 the average slaughter steer price for the entire June-May wheat year is used in the ratio with the wheat price, while equation 2 contains a May-September slaughter steer price in the ratio. Using cattle prices during only the early months is somewhat more useful for forecasting purposes, since this information is known earlier. However, both equations do reasonably well in explaining historical variation in wheat feeding. Actual and estimated values for both equations are shown in accompanying charts.

The elasticity of .45 for COFJU7 in equation 1 means that if the number of cattle on feed in the 7 States increases by 10 percent from the previous July 1 level, there will be a corresponding 4.5-percent increase in wheat fed, all other things remaining unchanged. Likewise, if the fed cattle/wheat price ratio (PFDC/PWMS) increases by 10 percent, wheat feeding increases around 15.7 percent. An increase of 10 percent in the sorghum/wheat price ratio generates a 5.6-percent increase in wheat feed use.

Although the R^2 for both equations is in excess of 90 percent, standard errors of estimate are still large. The standard error for equation 1 suggests that the equation estimates actual wheat feeding within 23.5 million bushels in about 2 out of 3 years. To a large extent, this margin of error is likely the result of the residual nature of the wheat feeding estimate. Thus, forecasts of wheat used for feed, even with the aid of equations which generally describe past behavior, will continue to exhibit a relatively large amount of uncertainty.

Estimating Wheat Feed Use in 1979/80

Equation results indicate wheat feeding of 150 to 160 million bushels in the 1979/80 wheat marketing year, or about 15 percent less than last season. Forecasts for independent (explanatory) variables are provided below and in table 2:

PFDC = 71.00 (dollars per cwt.)
PFDCMS = 72.00 (dollars per cwt.)
PWMS = 6.00 (dollars per cwt.)
PSMS = 4.35 (dollars per cwt.)

The early season price relationship between wheat and cattle is more favorable for wheat feeding than in 1978/79. However, the number of cattle on feed on July 1 in 7 western States is 5 percent below a year ago. Although this is the only known value in the equations at this time, forecasted levels for the other variables also indicate reduced feeding this year.

BIBLIOGRAPHY

(1) Barr, Terry N., "Demand and Price Relationships for the U.S. Wheat Economy," *Wheat Situation*, WS-226, Economic Research Service, U.S. Dept. of Agriculture, Washington, D.C., November 1973.

(2) Gomme, Frank, "Wheat Feeding in the United States," *Wheat Situation*, WS-219, Economic Research Service, U.S. Dept. of Agriculture, Washington, D.C., February 1972.

(3) Meinken, Kenneth W., *The Demand and Price Structure for Wheat*, Tech. Bul. 1136, Agricultural Marketing Service, U.S. Dept. of Agriculture, Washington, D.C., November 1955.

Wheat Used for Feed Equation 1 and 2

Projected 1979/80

USDA

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Table 2.--Wheat: Quantity used for livestock feed in June-May year and related variables, United States, 1960/61 to 1979/80

Year beginning June 1	Quantity of wheat fed June-May (QWFD)	Cattle on feed July 1 in 7 Western States (COFJU7)	Fed cattle (annual)/ wheat (May-Sept.) price ratio 1/ (PFDC/PWMS)	Fed cattle/wheat price ratio 1/ May-Sept. (PFDCMS/PWMS)	Sorghum/wheat price ratio 1/ May-Sept. (PSMS/PWMS)
	Mil. bu.	Thous. hd.			
1960/61	30.3	2,165	8.73	8.79	.53
1961/62	43.9	2,158	8.33	7.78	.56
1962/63	34.6	2,472	7.83	7.98	.52
1963/64	28.5	2,807	7.30	7.65	.57
1964/65	54.8	2,959	9.67	9.32	.74
1965/66	145.9	3,377	11.93	11.93	.86
1966/67	100.5	4,014	9.04	9.36	.67
1967/68	36.5	4,210	10.78	10.71	.81
1968/69	156.3	4,208	13.60	13.03	.84
1969/70	187.7	5,390	14.59	15.41	.92
1970/71	192.6	5,648	13.89	13.86	.88
1971/72	262.3	6,392	15.10	14.52	1.01
1972/73	199.5	7,716	16.28	15.07	.82
1973/74	125.1	8,030	8.26	8.87	.62
1974/75	34.9	6,057	6.14	6.40	.66
1975/76	34.0	5,173	7.57	8.38	.74
1976/77	68.4	6,146	7.24	7.22	.79
1977/78	183.3	6,024	12.69	11.57	.81
1978/79	183.0	7,019	12.74	11.53	.74
1979/80 2/	150.0-160.0	6,652	11.83	12.00	.72

1/ Lb. for lb. 2/ Forecast.

TABLE 2.--WHEAT: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1974-79 *

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS		
					DOMESTIC USE									
	BEGIN-NING STOCKS	PRODUC-TION	IM-PORTS 1/	TOTAL	FOOD 2/	ALC. BEVER-AGES	SEED	FEED 3/	TOTAL	EX-PORTS 1/	TOTAL DISAP-PEARANCE	GOVT. OWNED 4/	PRI-VATELY OWNED 5/	TOTAL
	MILLION BUSHELS													
1974/75														
JUNE-SEPT.	340.1	1,781.9	2.2	2,124.1	178.0	6/	34.0	19.6	231.6	330.4	562.0	---	1,562.1	1,562.1
OCT.-DEC.	1,562.1	---	0.6	1,562.7	144.5	6/	32.0	-4.3	172.2	283.0	455.2	---	1,107.5	1,107.5
JAN.-MAR.	1,107.5	---	0.4	1,107.9	129.4	6/	0.6	60.5	190.5	255.3	445.8	---	662.1	662.1
APR.-MAY	662.1	---	0.2	662.3	93.1	6/	25.4	-40.9	77.5	149.8	227.3	---	435.0	435.0
MKT. YEAR	340.1	1,781.9	3.4	2,125.3	545.0	6/	92.0	34.9	671.9	1,018.5	1,690.4	---	435.0	435.0
1975/76														
JUNE-SEPT.	435.0	2,122.5	0.7	2,558.1	195.6	6/	33.0	16.6	245.2	428.4	673.6	---	1,884.5	1,884.5
OCT.-DEC.	1,884.5	---	0.7	1,885.3	150.4	6/	35.0	-29.3	156.1	343.6	499.6	---	1,385.7	1,385.7
JAN.-MAR.	1,385.7	---	0.3	1,386.0	148.5	6/	1.0	52.4	201.9	247.3	449.2	---	936.8	936.8
APR.-MAY	936.8	---	0.6	937.4	94.2	6/	30.0	-5.7	118.5	153.7	272.1	---	665.3	665.3
MKT. YEAR	435.0	2,122.5	2.4	2,559.8	588.6	0.1	99.0	34.0	721.7	1,172.9	1,894.6	---	665.3	665.3
1976/77														
JUNE-SEPT.	665.3	2,142.4	0.9	2,808.5	200.4	6/	32.0	-11.0	221.5	398.8	620.3	---	2,188.2	2,188.2
OCT.-DEC.	2,188.2	---	0.4	2,188.6	152.5	6/	34.0	6/	186.6	220.3	406.8	---	1,781.8	1,781.8
JAN.-MAR.	1,781.8	---	0.4	1,782.1	147.3	6/	1.0	65.5	213.8	178.8	392.6	---	1,389.5	1,389.5
APR.-MAY	1,389.5	---	1.1	1,390.6	87.9	6/	25.0	13.9	126.7	151.6	278.4	---	1,112.2	1,112.2
MKT. YEAR	665.3	2,142.4	2.7	2,810.3	588.0	0.1	92.0	68.4	748.6	949.5	1,698.1	---	1,112.2	1,112.2
1977/78														
JUNE-SEPT.	1,112.2	2,036.3	0.8	3,149.4	193.3	6/	32.0	142.0	367.3	381.7	749.0	8.2	2,392.2	2,400.4
OCT.-DEC.	2,400.4	---	0.4	2,400.7	153.5	6/	23.0	5.1	181.6	225.4	407.0	31.8	1,962.0	1,993.8
JAN.-MAR.	1,993.8	---	0.4	1,994.2	145.5	6/	1.0	41.4	187.9	278.6	466.5	44.8	1,482.9	1,527.7
APR.-MAY	1,527.7	---	0.3	1,528.0	94.2	6/	24.0	-5.2	113.1	238.2	351.3	45.7	1,131.0	1,176.7
MKT. YEAR	1,112.2	2,036.3	1.9	3,150.5	586.5	0.1	80.0	183.3	849.9	1,123.9	1,973.8	45.7	1,131.0	1,176.7
1978/79 7/														
JUNE-SEPT.	1,176.7	1,798.7	0.5	2,976.0	191.7	6/	27.0	127.0	345.6	493.3	839.0	48.9	2,088.1	2,137.0
OCT.-DEC.	2,137.0	---	0.5	2,137.5	153.7	6/	34.0	9.2	196.9	308.8	505.7	49.5	1,582.3	1,631.8
JAN.-MAR.	1,631.8	---	0.5	1,632.3	147.4	6/	1.0	34.5	182.9	224.5	407.4	49.5	1,175.4	1,224.9
APR.-MAY	1,224.9	---	0.3	1,225.2	98.7	6/	25.0	12.4	136.1	167.5	303.6	49.5	872.1	921.6
MKT. YEAR	1,176.7	1,798.7	1.8	2,977.2	591.5	6/	87.0	183.0	861.5	1,194.1	2,055.6	49.5	872.1	921.6

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENT. 2/ USED FOR FOOD IN THE UNITED STATES, U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL; APPROXIMATES FEED USE. 4/ UNCOMMITTED, GOVERNMENT ONLY. 5/ INCLUDES TOTAL LOANS. 6/ LESS THAN 50,000 BUSHELS. 7/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

TABLE 3.--WHEAT CLASSES: MARKETING YEAR SUPPLY AND DISAPPEARANCE, 1976-79 1/

YEAR BEGINNING JUNE 1	SUPPLY			DISAPPEARANCE			ENDING STOCKS MAY 31
	BEGINNING STOCKS	PRODUCTION	TOTAL 2/	DOMESTIC USE	EXPORTS 3/	TOTAL	
	MILLION BUSHELS						
1976/77							
HARD WINTER	379	976	1,355	332	418	750	605
RED WINTER	57	336	393	140	181	321	72
HARD SPRING	116	411	528	154	124	278	250
DURUM	53	135	190	57	41	98	92
WHITE	60	284	344	65	186	251	93
ALL CLASSES	665	2,142	2,810	748	950	1,698	1,112
1977/78							
HARD WINTER	605	992	1,597	431	535	966	631
RED WINTER	72	350	422	154	197	351	71
HARD SPRING	250	398	649	158	156	314	335
DURUM	92	80	173	44	62	106	67
WHITE	93	216	309	62	174	236	73
ALL CLASSES	1,112	2,036	3,150	849	1,124	1,973	1,177
1978/79 4/							
HARD WINTER	631	834	1,465	435	610	1,045	420
RED WINTER	71	202	273	151	95	246	27
HARD SPRING	335	380	715	161	232	393	322
DURUM	67	133	201	44	72	116	85
WHITE	73	250	323	70	185	255	68
ALL CLASSES	1,177	1,799	2,977	861	1,194	2,055	922
1979/80 5/							
HARD WINTER	420	1,072	1,492	433	695	1,128	364
RED WINTER	27	304	331	153	135	288	43
HARD SPRING	322	376	699	164	225	389	310
DURUM	85	111	197	48	70	118	79
WHITE	68	238	306	67	175	242	64
ALL CLASSES	922	2,101	3,025	865	1,300	2,165	860

1/ DATA, EXCEPT PRODUCTION, ARE APPROXIMATIONS. 2/ TOTAL SUPPLY INCLUDES IMPORTS. 3/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS IN WHEAT EQUIVALENT. 4/ PRELIMINARY. 5/ PROJECTED.

Table 4.--Wheat: Cash prices for leading classes at major markets, 1977-79 1/

Major market and Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per bushel - - - -												
No. 1 HRW, Kansas City													
Ordinary protein													
1977/78	2.31	2.35	2.31	2.47	2.56	2.81	2.80	2.82	2.84	3.07	3.21	3.12	2.72
1978/79	3.12	3.14	3.14	3.24	3.42	3.48	3.39	3.42	3.50	3.52	3.53	3.64	3.38
13% protein													
1977/78	2.51	2.43	2.38	2.53	2.61	2.86	2.87	2.92	2.92	3.09	3.36	3.25	2.81
1978/79	3.20	3.17	3.15	3.26	3.42	3.48	3.40	3.43	3.52	3.55	3.58	3.71	3.41
No. 2 SRW, Chicago													
1977/78	2.29	2.20	2.08	2.20	2.27	2.59	2.65	2.69	2.64	2.82	3.11	3.14	2.56
1978/79	3.18	3.22	3.32	3.42	3.51	3.68	3.68	3.73	3.88	3.79	3.60	3.86	3.57
No. 2 SRW, St. Louis													
1977/78	2.15	2.14	1.97	2.01	2.28	2.70	2.74	2.75	2.71	2.90	3.09	2.99	2.54
1978/79	3.05	3.16	3.21	3.23	3.41	3.57	3.50	3.57	3.66	3.51	3.62	3.68	3.43
No. 2 SRW, Toledo													
1977/78	2.21	2.13	2.03	2.08	2.21	2.53	2.57	2.62	2.55	2.77	3.07	3.03	2.48
1978/79	3.09	3.13	3.21	3.32	3.46	3.73	3.72	3.73	3.69	3.66	3.56	3.71	3.50
No. 2 SW, Toledo													
1977/78	2.21	2.16	2.04	2.06	2.18	2.52	2.56	2.62	2.56	2.77	3.07	3.03	2.48
1978/79	3.10	3.26	3.45	3.63	3.69	3.87	3.77	3.72	3.63	3.44	3.35	3.53	3.54
No. 1 SW, Portland													
1977/78	2.79	2.88	2.88	2.80	2.75	2.91	2.97	3.17	3.33	3.41	3.62	3.60	3.09
1978/79	3.60	3.74	3.72	3.77	3.76	3.76	3.71	3.70	3.65	3.70	3.70	3.91	3.73
No. 1 DK. NS, Minneapolis													
Ordinary protein													
1977/78	2.43	2.29	2.22	2.51	2.61	2.71	2.68	2.73	2.72	2.86	3.08	3.10	2.66
1978/79	3.06	2.95	2.96	3.07	3.21	3.32	3.15	3.12	3.12	3.18	3.29	3.62	3.17
14% protein													
1977/78	2.65	2.54	2.48	2.75	2.87	2.96	2.92	2.94	2.90	3.03	3.23	3.27	2.88
1978/79	3.21	3.11	3.13	3.26	3.41	3.47	3.32	3.30	3.36	3.42	3.45	3.73	3.35
Hard amber durum, Mpls. (med.)													
1977/78	2.84	2.84	2.80	3.12	3.42	3.54	3.51	3.62	3.61	3.60	3.72	3.79	3.37
1978/79	3.72	3.56	3.55	3.52	3.69	3.70	3.53	3.60	3.64	3.72	3.71	3.98	3.66

1/ On-track prices established at the close of the market.

Table 5.--Wheat: Farm price, loan rate per bushel and price for equivalent quantity of major feed grain in region, 1977-79 1/

Item	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average	Support rate
	- - - - Price for 60 pounds (bushel weight of wheat) - - - -													
Central and So. Plains (Hd. winter) 2/														
Wheat 1977/78	1.94	1.98	1.94	2.06	2.19	2.37	2.38	2.37	2.44	2.55	2.69	2.69	2.30	2.19
Sorghum 1977/78	1.82	1.75	1.59	1.60	1.74	1.87	1.86	1.87	1.91	2.02	2.16	2.21	1.87	1.79
Wheat 1978/79	2.72	2.71	2.74	2.82	2.96	2.98	2.97	2.93	2.96	2.97	3.00	3.12	2.91	2.28
Sorghum 1978/79	2.15	2.05	1.97	1.96	2.06	2.11	2.12	2.11	2.11	2.12	2.15	2.17	2.09	2.00
Cornbelt (Soft red winter) 4/														
Wheat 1977/78	1.99	1.97	1.88	1.88	2.01	2.35	2.45	2.45	2.48	2.64	2.88	2.89	2.32	2.26
Corn 1977/78	2.30	2.01	1.74	1.70	1.80	2.07	2.16	2.17	2.21	2.33	2.47	2.50	2.12	1.93
Wheat 1978/79	2.88	2.90	3.02	3.08	3.23	3.34	3.37	3.37	3.50	3.38	3.44	3.58	3.26	2.34
Corn 1978/79	2.52	2.39	2.18	2.13	2.12	2.19	2.27	2.31	2.39	2.44	2.51	2.61	2.34	2.18
East and South (Soft red winter) 5/														
Wheat 1977/78	1.95	1.91	1.68	2.00	---	2.30	2.23	---	---	---	---	---	1.95	2.22
Corn 1977/78	2.58	2.20	1.85	1.84	1.95	2.29	2.41	2.34	2.44	2.58	2.69	2.87	2.33	2.03
Wheat 1978/79	2.72	3.03	3.11	---	3.09	3.18	---	---	---	3.01	3.07	3.27	3.06	2.28
Corn 1978/79	2.84	2.58	2.38	2.32	2.42	2.51	2.61	2.69	2.71	2.77	2.92	3.01	2.65	2.29
Northern Plains (Spring and durum) 6/														
Wheat 1977/78	2.25	2.16	2.16	2.28	2.45	2.59	2.56	2.60	2.62	2.66	2.81	2.84	2.50	2.26
Barley 1977/78	2.10	1.71	1.70	1.71	1.91	2.11	2.14	2.15	2.19	2.21	2.34	2.39	2.05	1.74
Wheat 1978/79	2.79	2.69	2.71	2.78	2.87	2.93	2.86	2.75	2.83	2.84	2.89	3.14	2.84	2.36
Barley 1978/79	2.25	2.00	2.02	2.14	2.22	2.36	2.33	2.27	2.26	2.34	2.46	2.55	2.27	1.92
Pacific Northwest (White) 7/														
Wheat 1977/78	2.47	2.52	2.55	2.45	2.40	2.58	2.62	2.69	2.92	3.07	3.17	3.22	2.72	2.31
Barley 1977/78	2.47	2.44	2.25	2.32	2.10	2.31	2.30	2.36	2.47	2.56	2.64	2.71	2.41	1.99
Wheat 1978/79	3.23	3.29	3.35	3.36	3.30	3.30	3.34	3.30	3.21	3.22	3.30	3.42	3.30	2.41
Barley 1978/79	2.69	2.59	2.54	2.35	2.25	2.32	2.31	2.39	2.36	2.44	2.49	2.58	2.44	2.15
U.S. Average														
Wheat 1977/78	2.03	2.04	2.13	2.16	2.30	2.46	2.47	2.53	2.59	2.67	2.82	2.82	8/2.33	2.25
Wheat 1978/79	2.81	2.81	2.88	2.92	2.99	3.04	3.01	2.99	2.99	2.97	3.01	3.20	8/2.94	2.35

1/ Simple averages with no adjustment made for relative feed value. Relative feeding value: Corn 1.00; wheat 1.05; barley .90; sorghum .95; reported in Consumption of Feed by Livestock, Production Research Report No. 79, ERS, USDA. 2/ Kansas, Nebraska, Texas, Oklahoma, and Colorado. 3/ Preliminary. 4/ Ohio, Indiana, Illinois, and Missouri. 5/ Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Alabama, Louisiana, and Arkansas. 6/ North Dakota, South Dakota, and Minnesota. 7/ Washington, Oregon, and Idaho. 8/ Season average price including allowance for unredeemed loans and purchases by CCC.

Table 6.--Wheat and flour: Price relationships at milling centers annual and by periods, 1975-79

Year and periods	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-			
		Bakery flour per 100 lb. 2/	Byprodcts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byprodcts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
	- - - - Dollars - - - -									
1975/76										
June-Sept.	9.64	9.15	1.48	10.63	.99	10.37	10.38	1.45	11.83	1.46
Oct.-Dec.	9.55	9.58	1.67	11.25	1.70	10.12	10.66	1.56	12.22	2.10
Jan.-Mar.	9.49	9.29	1.56	10.85	1.36	9.97	10.36	1.47	11.83	1.86
Apr.-May	9.03	8.88	1.53	10.41	1.38	9.68	10.16	1.54	11.70	2.02
Season average	9.43	9.23	1.56	10.79	1.36	10.04	10.39	1.51	11.90	1.86
1976/77										
June-Sept.	8.47	8.31	1.70	10.01	1.54	8.98	9.64	1.74	11.38	2.40
Oct.-Dec.	6.92	7.05	1.71	8.76	1.84	7.16	8.04	1.72	9.76	2.60
Jan.-Mar.	6.75	6.70	1.63	8.33	1.58	7.02	7.78	1.66	9.44	2.42
Apr.-May	6.12	6.02	1.62	7.64	1.52	6.66	7.02	1.66	8.68	2.02
Season average	7.06	7.02	1.66	8.68	1.62	7.46	8.12	1.70	9.82	2.36
1977/78										
June-Sept.	5.61	5.86	1.19	7.05	1.44	5.97	6.70	1.23	7.93	1.96
Oct.-Dec.	6.34	6.46	1.33	7.79	1.45	6.69	7.24	1.23	8.47	1.78
Jan.-Mar.	6.77	6.88	1.37	8.25	1.48	6.82	7.52	1.25	8.77	1.95
Apr.-May	7.54	7.86	1.14	9.00	1.46	7.45	8.52	1.08	9.60	2.15
Season average	6.56	6.76	1.26	8.02	1.46	6.73	7.49	1.20	8.69	1.96
1978/79										
June-Sept.	7.29	7.49	1.27	8.76	1.47	7.27	8.03	1.16	9.19	1.92
Oct.-Dec.	7.83	7.77	1.67	9.44	1.61	7.78	8.15	1.48	9.63	1.85
Jan.-Mar.	7.98	7.84	1.61	9.45	1.47	7.74	8.05	1.44	9.49	1.75
Apr.-May 4/	8.31	8.46	1.35	9.81	1.50	8.26	8.65	1.29	9.94	1.68
Season average	7.85	7.89	1.47	9.36	1.51	7.76	8.22	1.34	9.56	1.80

1/ Based on 73 percent extraction rate, cost of 2.28 bushels: At Kansas City, NO. 1 Hard Winter, 13 percent protein, and at Minneapolis, NO. 1 Dark Northern Spring, simple average of 13 percent and 15 percent protein. 2/ Quoted as 95 percent patent at Kansas City and standard patent at Minneapolis, bulk basis. 3/ Assumed 50-50 millfeed distribution between bran and shorts or middlings, bulk basis. 4/ Preliminary.

Compiled from reports of Agricultural Marketing Service and Bureau of Labor Statistics, Department of Labor.

Table 7.--Cereal and bakery products: Retail price index, 1967-79

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
	(Index 1967 = 100)												
1967	99.8	99.7	99.9	99.9	99.7	99.9	99.9	99.8	99.7	99.7	99.8	99.9	99.8
1968	100.1	100.6	100.9	101.1	101.1	101.4	101.4	101.7	101.9	102.3	102.4	102.6	101.5
1969	103.0	103.5	103.5	103.8	104.4	104.7	105.4	105.9	106.6	107.2	107.7	108.0	105.3
1970	108.2	108.7	109.8	110.2	111.0	111.2	111.6	112.4	112.8	113.0	113.9	114.1	111.4
1971	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.7	114.3	114.8	115.0	114.7	114.4
1972	114.5	114.4	114.4	114.6	114.6	115.0	115.8	116.3	117.8	119.0	120.2	122.1	116.6
1973	123.0	123.5	124.7	132.4	139.0	145.8	148.5	149.7	154.4	158.6	161.4	164.3	143.8
1974	165.3	166.7	168.2	170.4	174.7	177.6	181.7	185.3	187.3	189.1	188.9	187.0	178.5
1975	185.2	184.6	182.6	181.6	181.6	181.9	182.2	182.0	181.1	180.6	180.2	180.8	182.0
1976	181.3	180.9	180.3	180.4	180.1	179.9	179.3	179.9	180.0	181.3	182.6	182.5	180.7
1977	182.8	183.3	182.7	184.9	185.4	187.1	189.0	190.8	194.5	194.4	194.8	198.2	189.0
1978	199.4	201.3	203.1	203.8	205.1	206.6	207.9	210.0	212.2	213.5	214.5	216.2	207.8

Bureau of Labor Statistics, U.S. Department of Labor.

Table 8.--Wheat: Monthly average export prices at selected ports, 1976-79

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Cents per bushel - - - -												
	GULF PORTS: NO. 1 HARD RED WINTER, ORDINARY PROTEIN												
1976/77	398	387	345	327	303	290	288	296	301	291	278	259	314
1977/78	253	263	260	272	283	304	312	311	315	337	355	337	300
1978/79	344	346	347	356	374	375	370	375	382	382	381	390	368
	EAST COAST NO. 1 SOFT RED WINTER												
1976/77	1/	350	319	312	284	274	278	285	291	278	271	258	291
1977/78	---	229	222	231	246	282	289	294	294	315	340	339	280
1978/79	337	337	344	353	370	382	1/	1/	1/	1/	1/	1/	354
	PORTLAND: NO. 2 WESTERN WHITE												
1976/77	362	364	342	331	306	299	284	294	305	298	302	299	316
1977/78	286	292	295	285	282	296	305	320	338	347	369	365	315
1978/79	369	385	378	384	382	384	377	378	372	376	376	403	380
	DULUTH: NO. 2 NORTHERN SPRING, 14% PROTEIN												
1976/77	442	423	374	344	326	312	303	305	310	303	302	286	336
1977/78	267	255	254	279	290	297	290	292	289	299	321	327	288
1978/79	324	315	319	328	346	350	327	331	336	342	346	376	337

1/ No price quotes available.

Source: Grain Market News.

Table 9.--Wheat, flour and wheat products, United States exports by months, 1973-79*

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
	- - - - 1,000 bushels - - - -												
	Wheat (Grain only)												
1973/74	125,910	110,095	139,912	132,527	122,270	120,508	89,469	83,185	72,848	65,678	55,802	55,119	1,173,323
1974/75	57,188	82,885	91,984	86,187	91,682	98,332	82,568	108,443	71,904	65,191	77,129	65,345	978,838
1975/76	77,583	99,988	111,446	125,943	123,762	118,614	92,462	92,069	72,517	77,353	77,111	67,787	1,136,635
1976/77	66,814	85,619	113,202	110,376	100,532	54,296	57,024	49,447	57,773	52,650	70,233	66,501	884,467
1977/78	77,073	83,657	93,432	110,634	69,107	57,565	87,368	64,819	94,669	105,468	103,286	120,060	1,067,138
1978/79	108,931	106,108	131,921	119,611	115,518	92,392	90,027	70,400	67,106	75,548	76,961	78,306	1,132,829
	Flour (Grain equivalent) 1/												
1973/74	2,875	3,613	3,861	4,737	1,498	1,504	2,650	2,925	2,736	2,624	3,067	3,475	35,565
1974/75	3,464	1,979	2,689	1,836	2,232	2,973	3,017	2,817	2,090	1,807	1,589	3,842	30,335
1975/76	2,664	2,627	2,740	2,045	2,113	2,019	1,380	1,149	1,206	1,525	3,212	4,306	26,986
1976/77	5,605	3,052	5,060	6,028	2,861	1,357	988	3,204	5,871	6,522	8,433	4,893	53,874
1977/78	3,803	3,586	3,411	2,893	2,011	2,204	3,446	1,987	3,820	4,464	6,412	5,844	43,881
1978/79	6,426	4,370	5,124	5,109	4,235	1,399	1,617	1,380	3,050	3,355	2,231	6,589	44,885
	Wheat products (Grain equivalent) 2/												
1973/74	812	372	489	310	426	771	1,379	763	470	487	871	620	8,070
1974/75	354	522	551	751	373	320	1,036	972	1,141	902	904	1,002	9,328
1975/76	1,540	1,275	212	340	955	856	1,395	1,223	89	140	481	754	9,260
1976/77	450	869	1,293	444	1,072	329	1,798	1,426	1,398	540	728	844	11,191
1977/78	788	926	269	1,211	925	952	1,821	1,097	1,164	1,059	942	1,694	12,848
1978/79	1,232	816	1,842	1,829	605	1,480	1,575	1,414	1,457	774	2,305	1,086	16,415
	Total wheat, flour and products												
1973/74	129,597	114,080	144,262	137,874	124,194	122,783	93,498	86,873	76,054	68,789	59,740	59,214	1,216,958
1974/75	61,006	85,386	95,224	88,774	94,287	102,125	86,621	112,232	75,135	67,900	79,622	70,189	1,018,501
1975/76	81,787	103,890	114,398	128,328	126,830	121,489	95,237	94,441	73,812	79,018	80,804	72,847	1,172,881
1976/77	72,869	89,540	119,555	116,848	104,465	55,982	59,810	54,077	65,042	59,712	79,394	72,238	949,532
1977/78	81,663	88,169	97,113	114,738	72,043	60,722	92,635	67,903	99,653	110,991	110,639	127,598	1,123,867
1978/79	116,588	111,294	138,888	126,550	120,358	95,271	93,219	73,194	71,612	79,677	81,497	85,981	1,194,129

1/ Includes meal and groats and durum.
2/ Includes macaroni, rolled wheat and bulgar.

*Totals may not add due to independent rounding.

SOURCE: Bureau of the Census.

Table 10.--Wheat: Rotterdam, c.i.f., quotations for cargoes/parcels in nearest shipment position, by months, 1973-79 1/

Year beginning	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per metric ton - - - -												
	Canadian No. 1 CWRS - 13.5												
1973	132	167	202	228	222	205	222	239	244	240	214	185	208
1974	204	216	216	213	234	237	232	209	198	182	192	193	210
1975	195	205	210	228	219	222	2/185	2/187	2/195	2/174	2/166	2/169	196
1976	2/188	2/175	158	156	145	141	139	145	146	135	133	134	150
1977	127	122	117	129	137	144	145	153	155	2/148	2/154	2/159	141
1978	2/157	161	163	166	170	177	NQ	NQ	2/169	2/164	2/159	NQ	165
	United States No. 2 Hard Winter, 13.5%												
1973	121	144	203	212	206	200	223	230	232	224	183	170	196
1974	177	191	194	204	230	229	219	195	180	176	159	146	192
1975	146	174	188	195	185	173	166	168	181	183	176	169	175
1976	172	176	159	150	139	131	132	133	140	132	130	121	143
1977	114	116	116	120	126	135	137	134	132	139	151	142	130
1978	150	146	147	148	156	161	157	155	160	165	157	166	156
	United States Dark Northern Spring, 14%												
1973	132	146	193	201	194	198	224	240	240	228	182	180	196
1974	209	214	217	214	233	233	228	204	192	179	182	181	207
1975	175	185	196	202	193	182	187	183	193	194	174	178	187
1976	181	176	158	148	138	137	142	145	148	134	130	127	147
1977	115	111	110	121	126	131	132	144	147	147	147	145	131
1978	142	138	140	144	153	159	150	164	170	164	154	166	154

1/ Hamburg Mercantile Exchange prices for Rotterdam. Averages: Basis daily market quotes. 30 days delivery.

2/ Canadian Western Spring Wheat (CWRS)--No. 2--12.5 protein.

NQ - Not quoted.

Compiled from Foreign Agriculture Grain Circular, Foreign Agriculture Service.

Table 11.--Wheat and Wheat Flour: World trade, production, stocks and utilization for 1976/77, 1977/78, 1978/79, and projected levels for 1979/80, years beginning July 1

Country or region	1976/77	1977/78	1978/79 preliminary	1979/80 projected
	Million metric tons			
Exports:				
Canada	12.9	15.9	13.2	14.5
Australia	8.5	11.1	7.0	10.5
Argentina	5.6	2.6	3.3	3.5
Sub-total	27.0	29.5	23.5	28.5
W. Europe	6.3	7.1	9.4	8.0
USSR	1.0	1.0	1.5	0.5
All others	2.8	4.2	4.9	5.4
Total non-U.S.	37.1	41.8	39.3	42.4
USA 1/	26.1	31.5	31.8	35.4
World total	63.1	73.3	71.1	77.7
Imports:				
W. Europe	5.6	7.6	6.9	7.2
USSR	4.6	6.9	5.2	10.0
Japan	5.5	5.8	5.5	5.6
E. Europe	6.3	4.8	4.3	6.1
China	3.1	8.6	8.5	8.0
All others	38.1	39.6	40.6	40.8
World total	63.1	73.3	71.1	77.7
(World total including intra EC-9)	68.5	79.5	76.6	82.7
Production: 2/				
Canada	23.6	19.9	21.2	18.7
Australia	11.7	9.3	18.3	15.0
Argentina	11.0	5.3	8.1	8.2
W. Europe	50.7	47.6	58.6	53.1
USSR 3/	96.9	92.2	120.8	90.0
E. Europe	34.7	34.2	35.9	31.8
India	28.8	29.0	31.3	34.7
All other foreign	99.5	89.0	94.6	97.3
Total foreign	356.8	326.5	388.9	348.8
USA	58.3	55.4	49.0	57.2
World total	415.1	381.9	437.9	406.0
Utilization: 4/				
USA	20.4	23.4	23.3	23.5
USSR 3/	92.5	107.1	106.5	108.0
China	48.1	49.1	52.5	53.0
All other foreign	219.0	215.5	232.2	232.3
World total	379.9	395.0	414.5	416.8
Stocks, ending: 5/	98.2	85.1	108.5	97.7

1/ Includes transshipments through Canadian ports; excludes products other than flour. 2/ Production data include all harvests occurring within the July-June year shown, except that small grain crops from the early harvesting Northern Hemisphere areas are "moved forward"; i.e., the May 1978 harvests in areas such as India, North Africa, and southern United States are actually included in "1978/79" accounting period which begins July 1, 1978. 3/ "Bunker weight" basis: not discounted for excess moisture and foreign material. 4/ Utilization data are based on an aggregate of differing local marketing years. For countries for which stocks data are not available, (excluding the USSR) utilization estimates represent "apparent" utilization, i.e., they are inclusive of annual stock level adjustments. 5/ Stocks data are based on an aggregate of differing local marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude those such as China and parts of Eastern Europe; the world stock levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the entire absolute level of USSR stocks.

Source: Foreign Agricultural Service. World Grain Situation: FG-11-79.

TABLE 12. --RYE: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1974-79 *

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS		
					DOMESTIC USE									
	BEGIN-NING STOCKS	PRODUC-TION	IM-PORTS	TOTAL	FOOD	ALC. BEVER-AGES	SEED	FEED 1/	TOTAL	EX-PORTS	TOTAL DISAP-PEARANCE	GOVT. OWNED 2/	PRI-VATELY OWNED 3/	TOTAL
	MILLION BUSHELS													
1974/75														
JUNE-SEPT.	14.2	17.5	4/	31.7	1.9	0.4	2.1	3.3	7.6	4.2	11.9	---	19.8	19.8
OCT.-DEC.	19.8	---	4/	19.8	1.4	0.4	1.9	2.3	6.0	2.2	8.2	---	11.6	11.6
JAN.-MAR.	11.6	---	---	11.6	1.3	0.3	0.2	1.8	3.6	4/	3.7	---	7.9	7.9
APR.-MAY	7.9	---	0.3	8.2	0.8	0.3	---	0.4	1.5	4/	1.6	---	6.6	6.6
MKT. YEAR	14.2	17.5	0.3	32.0	5.5	1.4	4.2	7.8	18.9	6.5	25.3	---	6.6	6.6
1975/76														
JUNE-SEPT.	6.6	16.0	0.2	22.8	1.4	0.4	2.1	3.5	7.5	0.7	8.2	---	14.7	14.7
OCT.-DEC.	14.7	---	0.2	14.9	1.1	0.7	1.9	1.8	5.5	0.3	5.8	---	9.1	9.1
JAN.-MAR.	9.1	---	4/	9.1	1.1	0.5	0.2	1.6	3.3	4/	3.3	---	5.8	5.8
APR.-MAY	5.8	---	0.5	6.2	0.6	0.5	---	0.7	1.7	0.1	1.8	---	4.4	4.4
MKT. YEAR	6.6	16.0	0.9	23.5	4.2	2.1	4.2	7.6	18.0	1.1	19.1	---	4.4	4.4
1976/77														
JUNE-SEPT.	4.4	15.0	0.2	19.6	1.2	0.5	2.1	1.7	5.5	4/	5.5	---	14.1	14.1
OCT.-DEC.	14.1	---	4/	14.1	1.0	0.5	1.9	1.8	5.2	4/	5.2	---	8.9	8.9
JAN.-MAR.	8.9	---	4/	8.9	0.9	0.6	0.2	1.0	2.7	4/	2.7	---	6.2	6.2
APR.-MAY	6.2	---	---	6.2	0.6	0.4	---	0.8	1.8	4/	1.8	---	4.4	4.4
MKT. YEAR	4.4	15.0	0.2	19.6	3.7	1.9	4.2	5.3	15.1	4/	15.2	---	4.4	4.4
1977/78														
JUNE-SEPT.	4.4	17.3	0.1	21.8	1.2	0.6	2.4	2.9	7.1	4/	7.1	---	14.8	14.8
OCT.-DEC.	14.8	---	---	14.8	1.0	0.5	2.2	1.8	5.5	4/	5.5	---	9.3	9.3
JAN.-MAR.	9.3	---	---	9.3	0.9	0.5	0.2	1.6	3.2	4/	3.2	---	6.1	6.1
APR.-MAY	6.1	---	4/	6.1	0.6	0.3	---	1.1	2.0	4/	2.0	---	4.1	4.1
MKT. YEAR	4.4	17.3	0.1	21.8	3.6	1.9	4.8	7.4	17.7	4/	17.7	---	4.1	4.1
1978/79 5/														
JUNE-SEPT.	4.1	26.2	0.1	30.4	1.1	0.5	2.5	2.3	6.4	4/	6.4	---	24.0	24.0
OCT.-DEC.	24.0	---	---	24.0	1.1	0.6	2.2	3.8	7.7	4/	7.7	---	16.3	16.3
JAN.-MAR.	16.3	---	4/	16.3	0.9	0.7	0.2	1.8	3.7	4/	3.7	---	12.6	12.6
APR.-MAY	12.6	---	---	12.6	0.6	0.5	---	1.5	2.6	0.3	3.0	---	9.6	9.6
MKT. YEAR	4.1	26.2	0.1	30.4	3.7	2.4	4.9	9.5	20.5	0.3	20.8	---	9.6	9.6

1/ RESIDUAL; ROUGHLY APPROXIMATES TOTAL FEED USE. 2/ UNCOMMITTED, GOVERNMENT ONLY. 3/ INCLUDES TOTAL LOANS. 4/ LESS THAN 50,000 BUSHELS. 5/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

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Weights, Measures and Conversion Factors

Bushel weights:
- Wheat & soybeans = 60 lbs.
- Corn, sorghum & rye = 56 lbs.
- Barley (grain) = 48 lbs.: malt = 34 lbs.
- Oats = 32 lbs.

Bushels to metric tons:
- Wheat & soybeans = bushels x .027216
- Barley = bushels x .021772
- Corn, sorghum, rye = bushels x .025400
- Oats = bushels x .014515

1 Metric ton equals:
- 2204.622 lbs.
- 22.046 hundredweight
- 10 quintals
- 1,000 kilograms
- 36.7437 bushels wheat or soybeans
- 39.3679 bushels corn, sorghum, or rye
- 45.9296 bushels barley
- 68.8944 bushels oats

Area:
- 1 Acre = .404694 hectares
- 1 Hectare = 2.4710 acres

Yields:
- Wheat = bushels per acre x 0.6725 = quintals per hectare
- Rye, corn = bushels per acre x 0.6277 = quintals per hectare
- Barley = bushels per acre x 0.5380 = quintals per hectare
- Oats = bushels per acre x 0.3587 = quintals per hectare

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